## Comments on the species of Phasmida described by Stoll in 1788 and named by Olivier in 1792.

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## Key words

Phasmida, Objective synonyms, Olivier, Stoll, Lichtenstein.

In 1788 Stoll produced the first part (pages 1-56 and plates 1-18) of his superbly illustrated book on phasmids, mantids etc. He did not use latinized binomial names in the descriptions, so he was describing the species without scientific names. Stoll died in 1795 and the remainder of this work was published posthumously in 1813, with an index containing latinized binomial names. The second part was obviously edited by someone because some of the names in the index are ones which were used for his species by other authors after he died. However there is no direct evidence to suggest that Stoll did not propose the new specific names which were used in 1813, these are therefore attributed to him.

Between 1788 and 1813 other authors proposed scientific names for the species described by Stoll in 1788. As these names are clearly linked to Stoll's descriptions and plates, they are valid names, and, as they predate Stoll's names, they have priority. The first person to propose names for Stoll's species was Olivier in the *Encyclopédie Méthodique*, *Histoire Naturelle*, *Insectes*, in 1792. Lichtenstein, in his publications of 1796 and 1802, proposed different names for almost all of these species, presumably unaware of most of Olivier's names. Olivier's names have priority over both Lichtenstein's and Stoll's; however Stoll's, and occasionally Lichtenstein's, names have been used by various authors over the years. Kirby's *Synonymic Catalogue of Orthoptera*, published in 1904, clearly listed the correct names and the synonyms; this should have ensured that the correct names were used subsequently. However Brunner (1907) and Redtenbacher (1906, 1908) used Stoll's names in most cases, and, as their work forms the basis for most identification, some subsequent authors have similarly used incorrect names.

Objective synonyms are different names based on the identical description or illustration (and hence the same specimen). They are relatively rare, yet between 1792 and 1813 there were 17 junior objective synonyms produced, during the same period only 18 new species were described (excluding those described by Stoll in 1813). There has never been any other occasion when so many objective synonyms have been produced for phasmids; these may constitute the majority of all the objective synonyms. The following list gives the synonyms for Olivier's names.

Mantis baculis Olivier, 1792. - Stoll, 1788: 41, pl. 13.51 *Phasma arumatia* Stoll, 1813.

Mantis keratosqueleton Olivier, 1792. - Stoll, 1788: 46, pl. 15.57, 15.57A. Phasma cornutum Lichtenstein, 1796. Phasma bicornis Stoll, 1813.

Mantis foliopeda Olivier, 1792. - Stoll, 1788: 44, pl. 14.54. Phasma latipes Lichtenstein, 1796. Phasma femorata Stoll, 1813.

Mantis sacrata Olivier, 1792. - Stoll, 1788: 53, pl. 18.65, 18.65A. Phasma dracunculus Lichtenstein, 1796. Phasma flabelliformis Stoll, 1813.

Mantis xanthomela Olivier, 1792. - Stoll, 1788: 31, pl. 10.36, 10.37.

Mantis erythroptera Olivier, 1792. - Stoll, 1788: 13, pl. 5.6.

Mantis draco Olivier, 1792. - Stoll, 1788: 13, pl. 5.18.

Phasma dracunculus Lichtenstein, 1796.

Phasma nympha Stoll, 1813.

Mantis squeleton Olivier, 1792. - Stoll, 1788: 45, pl. 14.55.

Phasma sceleton Lichtenstein, 1796.

Phasma simplex Stoll, 1813.

Mantis inflexipes Olivier, 1792. - Stoll, 1788: 43, pl. 13.52.

Phasma valgum Lichtenstein, 1896.

Phasma curvipes Stoll, 1813.

Mantis tessulatus Olivier, 1792. - Stoll, 1788: 4, pl. 8.26.

Phasma variegatum Lichtenstein, 1896.

Mantis bimaculata Olivier, 1792. - Stoll, 1788: 26, pl. 8.29.

Mantis viridana Olivier, 1792. - Stoll, 1788: 15, pl. 6.20.

Phasma edule Lichtenstein, 1796.

Mantis maculata Olivier, 1792. - Stoll, 1788: 8 & 10, pl. 3.8 & 4.11.

Phasma naevium Lichtenstein, 1802.

Mantis cinerea Olivier, 1792. - Stoll, 1788: 45, pl. 14.56.

Mantis chloropus Lichtenstein, 1796.

Although I have not included them in the above list, some subjective synonyms have been published. The situation with regard to subjective synonyms is more difficult to resolve. With such old species the original specimens are often untraceable and thus unavailable for comparison; I know type specimens of four of Stoll's species still exist, the rest may or may not still exist. In most cases the brevity of the early descriptions makes certain identification impossible unless the type specimens are available.

## References

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